

Appln. No.: 09/754,988
Art Unit: 1714
Page 8

REMARKS

Reconsideration and continued examination of the above-identified application are respectfully requested.

The claims have been amended as described in more detail below. No search is necessitated by this amendment and no new questions of patentability should arise, since the scope of this subject matter has already been examined by the Examiner. No new matter has been added. Finally this amendment places the application in condition for allowance. Therefore, entry of this amendment is respectfully requested.

In the Advisory Action dated September 30, 2003, the Examiner did not enter the amendments as set forth in the Amendment After Final filed September 9, 2003. This Supplemental Amendment After Final reintroduces many of these previous amendments and further amends claim 1 and similar claims in the manner suggested by the Examiner in the Advisory Action. In particular, the claims recite the further step of reacting with an acylating agent. Furthermore, claims 19 and 20 have been canceled by this Supplemental Amendment After Final. The applicants believe that all of the Examiner's comments set forth in the Advisory Action as well as the final Office Action have been addressed. Therefore, the applicants believe that all claims should be in condition for allowance. Furthermore, the Examiner kindly indicated in the Advisory Action that the applicants can submit a supplemental amendment in view of the Examiner's comments set forth in this Advisory Action. The Examiner further noted that the amendment would be considered even though it is after-final. The applicants and the undersigned appreciate the Examiner's comments and the Examiner's willingness to consider this amendment.

Pending Claims

Claims 30-33 and 38-39 have been allowed. Claims 1, 9-11, 13-15, 21, and 34 have been amended as shown above. Specifically, claims 1 and 21 have been amended to depend on allowed claim 30, and claim 34 has been amended to depend on allowed claim 38. In addition, claims 1, 21,

Appln. No.: 09/754,988
Art Unit: 1714
Page 9

and 34 have been amended to address the issues raised in the Advisory Action. Claims 9-11 and 14 have been amended for antecedent basis. Claims 13 and 15 have been amended to correct typographical errors. Claims 8 and 40-42 have been cancelled without prejudice. Also, claims 19 and 20 have been cancelled without prejudice to address the issues raised in the Advisory Action. Claims 1, 5-7, 9-18, 21-25, 30-35, and 38-39 are pending.

Summary of the Invention

The present application, in general, relates to methods of making a modified pigment by reacting a pigment having attached a first chemical group with a second chemical group to form said pigment having attached a third chemical group, as well as the modified pigments themselves. Ink compositions, in particular, inkjet ink compositions are also disclosed.

Rejection of Claims Under 35 U.S.C. § 102

Claims 1, 5, and 8-13

The Examiner has rejected the above-identified claims as being anticipated by Moffatt et al. (U.S. Patent No. 6,221,932). In paragraph 3 of the Final Office Action, the Examiner references paragraph 5 of the previous Office Action dated October 16, 2001. In paragraph 12, the Examiner summarizes Applicant's previous arguments concerning Moffatt et al., stating that Applicant has argued that Moffatt et al. discloses the reaction of modified pigments which comprise an activated ester group or aromatic ester group which do not undergo addition-elimination reactions as presently claimed but rather undergo nucleophilic or acylation reactions and thus Moffatt et al. does not disclose attaching "first" chemical group to a pigment as presently claimed. The Examiner agreed that Moffatt et al. discloses that the aromatic ester group undergoes nucleophilic substitution but states that this does not mean that the aromatic ester group does not or cannot undergo addition-elimination reactions. The Examiner further states that, although the aromatic group of Moffatt et al. is attached to the pigment on one side

Appln. No.: 09/754,988
Art Unit: 1714
Page 10

through an ester group, the aromatic group would still be able to react with the polymer through substituents present on its other side. The Examiner also notes that a specific type of aromatic group in the present specification is also disclosed in Moffatt et al. The Examiner therefore concludes that, while the aromatic group of Moffatt et al. is attached to the pigment through an ester group, this would not preclude the aromatic group from further reacting with a polymer.

Applicant respectfully disagrees. However, in order to place this application in condition for allowance, claim 1 has been amended to recite a method of preparing the modified pigment of claim 30. Claims 5 and 9-13, which depend directly or indirectly from claim 1, therefore also include the limitations of claim 30. Since the limitations of allowed claim 30 have been incorporated into rejected claims 1, 5, and 9-13, these claims should also be allowed. In addition, these method claims are dependent on an allowed product claim and therefore should be allowed (see *In re Ochiai*, 37 U.S.P.Q.2d 1127 (Fed. Circ. 1996)). Claim 8 has been cancelled without prejudice, rendering the rejection of this claim moot. Therefore, Applicant requests that the rejection of claims 1, 5, and 8-13 be withdrawn.

Claims 1, 5, 8-9, 12, and 14-19

The Examiner has rejected the above-identified claims as being anticipated by PCT Publication No. WO 99/31175. In paragraph 4 of the Final Office Action, the Examiner references paragraph 7 of the previous Office Action dated October 16, 2001. In paragraph 12, the Examiner summarizes Applicant's previous arguments concerning WO 99/31175, stating that Applicant has argued that WO 99/31175 discloses three different types of modified pigment and that none of these pigments meets the requirements of the present claims. The Examiner then states the position that the third type of modified carbon black disclosed by WO 99/31175 does disclose the invention of the present claims. The Examiner further identifies that the organic group that is attached to the pigment is an aromatic group, to which is attached an ionic or ionizable group, such as an amine group, to which is attached "any polymeric group capable of being attached" to carbon black including polyamide or polyacrylate and concludes that WO 99/31175 discloses electrophiles and nucleophiles as presently claimed. The Examiner also

Appln. No.: 09/754,988
Art Unit: 1714
Page 11

notes that, while Applicant argues the groups are attached using counterion exchange, the present claims contain no requirement regarding mechanism by which the groups attached to the pigment react with each other.

Applicant respectfully disagrees. However, in order to place this application in condition for allowance, claim 1 has been amended to recite a method of preparing the modified pigment of claim 30. Claims 5, 9, 12, and 14-18, which depend directly or indirectly from claim 1, therefore also include the limitations of claim 30. Since the limitations of allowed claim 30 have been incorporated into rejected claims 1, 5, 9, 12, and 14-18, these claims should also be allowed. In addition, these method claims are dependent on an allowed product claim and therefore should be allowed (see *In re Ochiai*, 37 U.S.P.Q.2d 1127 (Fed. Cir. 1996)). Claims 8 and 19 have been cancelled without prejudice, rendering the rejection of these claims moot. Therefore, Applicant requests that the rejection of claims 1, 5, 8-9, 12, and 14-19 be withdrawn.

Claims 21-22, 24, 34-35, and 40-41

The Examiner has rejected the above-identified claims as being anticipated by Moffatt et al. '257 (U.S. Patent No. 6,323,257). In paragraph 5 of the Final Office Action, the Examiner references paragraph 7 of the previous Office Action dated July 16, 2002. In paragraph 12, the Examiner summarizes Applicant's previous arguments concerning Moffatt et al. '257, stating that Applicant has argued that Moffatt et al. '257 discloses a modified pigment that is the reaction product of a polymerization reaction with the attached reactive group; not the reaction of the reactive group with nucleophilic polymer as required in the present claims. The Examiner agrees that Moffatt et al. '257 discloses attaching reactive group such as sulfone to the pigment followed by polymerization reaction. However, the Examiner then states that the end result is the attachment of polymer to the reactive group that is attached to the pigment and that this appears to meet the limitation of the present claims which require reacting first chemical group with second chemical group (i.e., nucleophilic polymer), concluding that the polymerization process of Moffatt et al. '257 results in polymer which then attaches to the reactive group.

In paragraph 12, the Examiner also summarizes Applicant's additional arguments concerning Moffatt et al. '257, stating that Applicant argues that Moffatt et al. '257 does not

Appln. No.: 09/754,988
Art Unit: 1714
Page 12

disclose nucleophilic polymers presently claimed given that alkylene glycol derived from acrylic and methacrylic acid is a radical polymerization monomer and not a nucleophilic polymer. The Examiner states that it is not the monomer but the polymer which is attached to the reactive group of the pigment. As a result of the polymerization reaction of Moffatt et al. '257, a polymer is attached to a reactive group on the pigment. The Examiner further states that Moffatt et al. '257 discloses that the monomers include "alkylene glycol and their ethers derived from acrylic and methacrylic acid" and that this clearly encompasses both alkylene glycol and alkylene glycols ethers derived from acrylic and methacrylic acid, noting that polyethylene glycol is a polymer within the scope of the present claims. The Examiner therefore concludes that the result of the polymerization reaction of Moffatt et al. '257 is a reaction between a pigment with attached reactive group and a polymer (which results from polymerization reaction) and is therefore still relevant against the present claims.

Applicant respectfully disagrees. However, in order to place this application in condition for allowance, claim 21 has been amended to depend directly from allowed claim 30. Claims 22 and 24, which depend from claim 21, therefore also depend from allowed claim 30. In addition, claim 34 has been amended to depend directly from allowed claim 38. Claim 35, which depends from claim 34, therefore also depends from allowed claim 38. Since rejected claims 21-22, 24, and 34-35 depend from allowed claims 30 and 38, the rejected claims should also be allowed. Claims 40-42 have been cancelled without prejudice, rendering the rejection of these claims moot. Therefore, Applicant requests that the rejection of claims 21-22, 24, 34-35, and 40-42 be withdrawn.

Rejection of Claims under 35 U.S.C. § 103(a)

Claims 23 and 42

The Examiner has rejected claims 23 and 42 as being unpatentable over Moffatt et al. '257 (U.S. Patent No. 6,323,257). In paragraph 7 of the Final Office Action, the Examiner references paragraph 9 of the previous Office Action dated July 16, 2002.

AppIn. No.: 09/754,988
Art Unit: 1714
Page 13

Applicant respectfully disagrees. However, as discussed in more detail above, claim 21, from which claim 23 depends, has been amended to depend directly from allowed claim 30. Therefore, claim 23 should also be allowed. Claim 42 has been cancelled without prejudice, rendering the rejection of this claim moot. Therefore, Applicant requests that the rejection of claims 23 and 42 be withdrawn.

Claim 25

The Examiner has rejected claim 25 as being unpatentable over Moffatt et al. '257 (U.S. Patent No. 6,323,257) in view of Moffatt et al. (U.S. Patent No. 6,221,932). In paragraph 8 of the Final Office Action, the Examiner references paragraph 10 of the previous Office Action dated July 16, 2002.

Applicant respectfully disagrees. However, as discussed in more detail above, claim 21, from which claim 25 depends, has been amended to depend directly from allowed claim 30. Therefore, claim 25 should also be allowed. Therefore, Applicant requests that the rejection of claim 23 be withdrawn.

Claims 1, 5-9, and 12

The Examiner has rejected claims 1, 5-9, and 12 as being unpatentable over Moffatt et al. '257 (U.S. Patent No. 6,323,257) in view of WO 99/31175. In paragraph 9 of the Final Office Action, the Examiner references paragraph 11 of the previous Office Action dated July 16, 2002.

Applicant respectfully disagrees. However, as discussed in more detail above, claim 1, from which claims 5-7, 9 and 12 depend, has been amended to include the limitations of allowed claim 30. Therefore, claims 5-7, 9 and 12 also include the limitations of claim 30 and should also be allowed. Claim 8 has been cancelled without prejudice, rendering the rejection of this claim moot. Therefore, Applicant requests that the rejection of claims 1, 5-9, and 12 be withdrawn.

Claims 10-11

Appln. No.: 09/754,988
Art Unit: 1714
Page 14

The Examiner has rejected claims 10-11 as being unpatentable over Moffatt et al. '257 in view of WO 99/31157 as applied to claims 1, 5-9, and 12 above, and further in view of Moffatt et al. (U.S. Patent No. 6,221,932). In paragraph 10 of the Final Office Action, the Examiner references paragraph 12 of the previous Office Action dated July 16, 2002.

Applicant respectfully disagrees. However, as discussed in more detail above, claim 1, from which claims 10-11 depend, has been amended to include the limitations of allowed claim 30. Therefore, claims 10-11 also include the limitations of claim 30 and should also be allowed. Therefore, Applicant requests that the rejection of claims 10-11 be withdrawn.

Allowable Subject Matter

In paragraph 13 of the Final Office Action, the Examiner has objected to claim 20 as being dependent upon rejected base claims but further states that this would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 20 has been cancelled without prejudice, making the objection to this claim moot.

Also, in paragraph 14 of the Final Office Action, the Examiner has found claims 30-33 and 38-39 to be allowable over the "closest" prior art of Moffatt et al. '257 (U.S. Patent No. 6,323,257) and Ikeda et al. (U.S. 5,952,429). Applicant is grateful for the allowable subject matter.

Conclusion

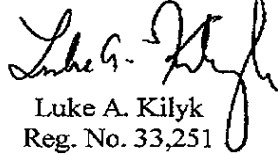
This application is considered in good and proper form for allowance, and the Examiner is respectfully requested to pass this application to issue. If, in the opinion of the Examiner, that a telephone conference would further expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

If there are any other fees due in connection with the filing of this response, please charge the fees to Deposit Account No. 03-0060. If a fee is required for an extension of time under 37

Appln. No.: 09/754,988
Art Unit: 1714
Page 15

C.F.R. § 1.136 not accounted for above, such extension is requested and should also be charged to said Deposit Account.

Respectfully submitted,



Luke A. Kilyk
Reg. No. 33,251

Atty. Docket No. 99097CIP (3600-381)
KILYK & BOWERSOX, P.L.L.C.
53 A East Lee Street
Warrenton, VA 20186
Tel.: (540) 428-1701
Fax: (540) 428-1720